THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	§	
Chuxin CHEN et al.	§	Confirmation No. 2855
	§	
Serial No.: 10/689,370	§	Group Art Unit: 2863
	§	
Filed: October 20, 2003	§	Examiner: Sun, Xiugin
	§	
For: Rule Based Capacity Management	§	
System for an Inter-Office Facility	§	
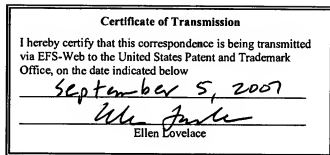
APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

    This Brief is submitted in connection with an appeal from the rejection of the Examiner, dated December 13, 2006, rejecting claims 1-20, all of the pending claims in this application.

REAL PARTY IN INTEREST

    The real party in interest is AT&T LABORATORIES, INC., a United States company having a principal office and place of business at 9505 Arboretum Drive, Austin, Texas 78759.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences regarding the above-identified patent application.

STATUS OF CLAIMS

Claims 1-20 are pending, stand rejected, and are on appeal here. Claims 1-20 are set forth in the CLAIMS APPENDIX attached hereto.

STATUS OF AMENDMENTS

No amendments were made to the claims in response to the Office action mailed December 13, 2006.

SUMMARY OF CLAIMED SUBJECT MATTER

One embodiment of the present invention, as now set forth in independent claim 1, relates to a system for monitoring equipment in a telecommunications network (Figs. 1 and 2; paras. 0015-0018). The system comprises a monitor set including at least one of either a subset of the equipment, a review period, or a configuration for the equipment (Fig. 5, step 250; para. 0026); a plurality of rules related to the monitor set, wherein the rules include at least one rule usable to predict exhaustion of the equipment (Figs. 10-11, rules 506; para. 0024 and Table 3; paras. 0035-0037); and means for obtaining data related to the monitor set (Fig. 4, inventory system 208 and data layer 206; para. 0024). The system further comprises a program for creating one or more analytical reports about the monitor set based on the rules and the data (Fig. 5, step 256; para. 0030), wherein the one or more analytical reports include a prediction of exhaustion of the equipment (Fig. 4, business layer 204; para. 0025 and Table 4), wherein the program includes an inference engine having instructions for retrieving the data from a data layer of an inventory retrieval system, determining if a match exists between the data and one or more of the plurality of rules and selectively firing the rule on the data to produce an analysis to create the one or more analytical reports (Fig. 6, inference engine 300 and steps 302-309; para. 0029).

Another embodiment of the present invention, as now set forth in independent claim 4, relates to a method for monitoring equipment in a telecommunications system and predicting when the equipment will be exhausted (Figs. 1 and 2; paras. 0015-0018; Fig. 5; paras. 0026-

-2-

0030). The method comprises selecting a configuration for the equipment (Fig. 5, step 250; para. 0026); defining a review for the selected configuration, the review identifying one or more rules usable to calculate exhaustion of the equipment (Fig. 5, step 250; para. 0026; para. 0024 and Table 3); and obtaining equipment related data using a separate inventory system (Fig. 5, step 252; Fig. 4, Inventory System 208; para. 0027). The method further comprises requesting retrieval of the obtained data for the defined review so that the data can be compared to the one or more rules (Fig. 5, step 254; paras. 0028 and 0029) and receiving a comparison of the data and the review (Fig. 5, step 256; para. 0030).

Another embodiment of the present invention, as now set forth in independent claim 10, is a system for monitoring equipment in a telecommunications network (Figs. 1 and 2; paras. 0015-0018). The system comprises a monitor set including at least one of either a subset of the equipment, a review period, or a configuration for the equipment (Fig. 5, step 250; para. 0026); a plurality of rules related to the monitor set, wherein at least one rule enables a prediction of equipment exhaustion (Figs. 10-11, rules 506; para. 0024 and Table 3; paras. 0035-0037); and means for obtaining data related to the monitor set (Fig. 4, inventory system 208 and data layer 206; para. 0024). The system further comprises a program for creating one or more analytical reports about the monitor set based on the rules and the data (Fig. 5, step 256; para. 0030), wherein at least one of the one or more analytical reports details a relationship between demand and capacity for at least a portion of the equipment (para. 0023 and Table 2).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1 and 13-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,999,179 to Kekic et al. ("Kekic") in view of U.S. Patent No. 6,892,317 to Sampath et al. ("Sampath").

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kekic in view of Sampath, as applied to claim 1, and further in view of U.S. Patent No. 5,210,704 to Husseiny ("Husseiny").

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kekic in view of Sampath, further in view of Husseiny, as applied to claims 1 and 2, and further in view of U.S. Patent No. 5,678,042 to Pisello et al. ("Pisello").

Claims 4 and 7-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kekic in view of U.S. Patent No. 6,225,999 to Jain et al. ("Jain") and U.S. Patent No. 5,761,432 to Bergholm et al. ("Bergholm").

Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kekic in view of Jain and Bergholm, as applied to claim 4, and further in view of Pisello.

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kekic in view of Jain and Bergholm, as applied to claim 4, and further in view of Husseiny.

Claims 10-12, 16, and 18-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kekic in view of Sampath and Pisello.

Claim 17 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kekic in view of Sampath and Pisello, as applied to claim 10, and further in view of Husseiny.

ARGUMENT

A.   <u>Claim 1</u>

Claim 1 recites features that are not rendered obvious by the combination of Kekic and Sampath. In particular, the feature:

> *a program for creating one or more analytical reports about the monitor set based on the rules and the data, wherein the one or more analytical reports include a prediction of exhaustion of the equipment, wherein the program includes:*
>
> > *an inference engine having instructions for . . . firing the rule on the data to produce an analysis and to create the one or more analytical reports*

is neither taught nor suggested by the combination of Kekic and Sampath. In the December 13th Office action, the Examiner recognized that Kekic fails to teach the above-noted feature and cited Sampath as remedying the deficiencies of Kekic in this regard. Appellants respectfully traverse the Examiner's position that Sampath teaches the above-noted limitation. In particular, Sampath is not concerned with prediction of equipment <u>exhaustion</u>; rather, it is concerned with prediction of equipment <u>failure</u>. The context of the specifications of both the Appellants' application and the Sampath patent are instructive as to the difference between these two concepts. In particular, the focus of Sampath is on detecting and/or predicting the failure of equipment so as to enable remedial measures to be undertaken. In contrast, the focus of Appellants' application, as clearly recited in the claims, is on predicting exhaustion of equipment based on, for example, the natural lifetime of the equipment (e.g., claim 2) and/or the capacity of the equipment (e.g., claim 3). Although these limitations are not specifically recited in claim 1, they serve as evidence of the context in which the term "exhaustion" is consistently used throughout the Appellants' application. The portion of Sampath cited as teaching prediction of equipment exhaustion (i.e., the natural expiration of equipment based on usage) clearly fails to do so.

Additionally, Appellants submit that column 6, lines 29-46, and column 9, lines 4-30, of Sampath, which were cited by the Examiner as teaching "<u>a program for creating one or more analytical reports</u> about a monitor set based on the rules and data related to the monitor set . . ." clearly fail to do so. The cited passages merely recite a laundry list of data values that can flow

between one or more of the electronic systems of Sampath; none of these data values constitutes an "analytical report" within the context of claim 1.

In view of the fact that Sampath fails to remedy the acknowledged deficiencies of Kekic, as described above, it is apparent that, even when combined, the references do not teach the subject matter as claimed in independent claim 1; therefore, the subject rejection thereof should be withdrawn.

For the foregoing reasons, the Examiner has failed to meet the burden of establishing a *prima facie* case of obviousness with respect to claim 1; therefore, the decision of the Examiner to reject independent claim 1 under 35 U.S.C. § 103(a) as being unpatentable over Kekic and Sampath is erroneous and should be reversed.

B.   Claim 4

With regard to claim 4, the combination of references cited by the Examiner in rejecting this claim (i.e., Kekic, Jain, and Bergholm) is clearly improper. Specifically, §2142 of the MPEP provides:

> *[T]he examiner must step backward in time and into the shoes worn by the hypothetical 'person of ordinary skill in the art' when the invention was unknown and just before it was made. . . . The examiner must put aside knowledge of the applicant's disclosure, refrain from using hindsight, and consider the subject matter claimed 'as a whole.'*

In this context, the MPEP further provides at §2143.01:

> *The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.*

Recently, the Supreme Court ruled that the longstanding "teaching, suggestion, or motivation (TSM) test" still applies, but should be used in a more "expansive and flexible" manner. *KSR Int'l. Co. v. Teleflex Inc.*, 550 U.S. __, 11 (2007). The Court stated that:

> *a patent composed of several elements <u>is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.</u> Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a <u>reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does</u>. This is so because inventions*

> *in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.*

Id. at 14-15 (emphasis added).

In the present case, even assuming *arguendo* that the Examiner can demonstrate that each element of claim 4 was independently known in the prior art, the Examiner has failed to identify a valid reason why a person of ordinary skill in art would have combined elements of the platform independent computer network management client taught by Kekic with elements of the customizable user interface for network navigation and management taught by Jain and elements of the apparatus for providing efficient use of telecommunications network resources taught by Bergholm in the manner recited in claim 4. It is apparent that <u>none of the cited references nor the state of the art provides any incentive or motivation</u> supporting the desirability of the combination. Therefore, there is simply no basis in the art that would have led someone to combine the references to support a 35 U.S.C. § 103 rejection.

In the present case it is clear that the Examiner's combination arises solely from hindsight based on the claimed invention without any showing, suggestion, incentive or motivation in either the references or in the state of the art at the time the invention was made for the combination as applied to the independent claim.

For the foregoing reasons, the Examiner has failed to meet the burden of establishing a *prima facie* case of obviousness with respect to claim 4; therefore, the decision of the Examiner to reject independent claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Kekic, Jain, and Bergholm is erroneous and should be reversed.

C.   <u>**Claim 10**</u>

1.   <u>The Combination of References Does Not Teach the Claimed Subject Matter</u>

Claim 10 recites features that are not rendered obvious by the combination of Kekic, Sampath, and Pisello. Specifically, features:

> *a plurality of rules related to the monitor set, wherein at least one rule enables a prediction of equipment exhaustion;*

and

> *a program for creating one or more analytical reports about the*

> *monitor set based on the rules and the data, wherein at least one of*
> *the analytical reports details a relationship between demand and*
> *capacity for at least a portion of the equipment*

are neither taught nor suggested by the cited combination of references. In particular, as described above with reference to claim 1, the Examiner's characterization of the teachings of Sampath with respect to the cited elements, which characterization is repeated verbatim the Office action in the rejection of claim 10, is in error, and claim 10 is allowable over the cited combination of references for the same reasons as independent claim 1.

Therefore, for this mutually exclusive reason, the Examiner has failed to meet the burden of establishing a *prima facie* case of obviousness with respect to claim 10; therefore, the decision of the Examiner to reject independent claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Kekic, Sampath, and Pisello is erroneous and should be reversed.

    2.   <u>The Combination of References is Improper</u>

Assuming, *arguendo*, that when combined, the references teach the claimed subject matter (which is clearly <u>not</u> the case, as demonstrated above), there is another mutually exclusive and compelling reason why the Kekic, Sampath, and Pisello references cannot be applied to reject claim 10 under 35 U.S.C. §103.

As set forth above with reference to claim 4, §2142 of the MPEP provides:

> *[T]he examiner must step backward in time and into the shoes worn by the*
> *hypothetical 'person of ordinary skill in the art' when the invention was unknown*
> *and just before it was made. . . . The examiner must put aside knowledge of the*
> *applicant's disclosure, refrain from using hindsight, and consider the subject*
> *matter claimed 'as a whole.'*

In this context, the MPEP further provides at §2143.01:

> *The mere fact that references can be combined or modified does not render the*
> *resultant combination obvious unless the prior art also suggests the desirability of*
> *the combination.*

As indicated above, the U.S. Supreme Court recently ruled that the longstanding TSM test remains applicable, but should be applied more flexibly. Specifically, the Court instructed that although common sense "directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions," it is also important to identify a "<u>reason that would have prompted a person of ordinary skill in the</u>

relevant field to combine the elements in the way the claimed new invention does." *Id.* at 14-15 (emphasis added).

Once again, the Examiner has not expressed any valid reason why a person of ordinary skill in art would combine elements of the platform independent computer network management client of Kekic with elements of the system for failure prediction, diagnosis and remediation using data acquisition and feedback for a distributed electronic system of Sampath and elements of the network management system having historical virtual catalog snapshots for overview of historic changes to files distributively stored across a network domain of Pisello in the manner recited in claim 10. Thus, it is clear that none of the cited references provides any incentive or motivation supporting the desirability of the combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. § 103 rejection.

In the present case it is clear that the Examiner's combination arises solely from hindsight based on the claimed invention without any showing, suggestion, incentive or motivation in either the references or in the state of the art at the time the invention was made for the combination as applied to the independent claim.

Therefore, for this additional mutually exclusive reason, the Examiner has failed to meet the burden of establishing a *prima facie* case of obviousness with respect to claim 10; therefore, the decision of the Examiner to reject independent claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Kekic, Sampath, and Pisello is erroneous and should be reversed.
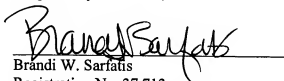

D.   Dependent claims 2, 3, 5-9, and 11-20

Dependent claims 2, 3, 5-9, and 11-20 depend from and further limit claims 1, 4, and 10 and are therefore allowable for at least the same reasons set forth above.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the Examiner has failed to support his rejection of claims 1-20. For all of the foregoing reasons, it is respectfully submitted that claims 1-20 be allowed. A prompt notice to that effect is earnestly solicited.

Respectfully submitted,

Date: 9|5|07

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CLAIMS APPENDIX

1. A system for monitoring equipment in a telecommunications network, the system comprising:

a monitor set including at least one of either a subset of the equipment, a review period, or a configuration for the equipment;

a plurality of rules related to the monitor set, wherein the rules include at least one rule usable to predict exhaustion of the equipment;

means for obtaining data related to the monitor set; and

a program for creating one or more analytical reports about the monitor set based on the rules and the data, wherein the one or more analytical reports include a prediction of exhaustion of the equipment, wherein the program includes:

an inference engine having instructions for retrieving the data from a data layer of an inventory retrieval system, determining if a match exists between the data and one or more of the plurality of rules and selectively firing the rule on the data to produce an analysis to create the one or more analytical reports.

2. The system of claim 1 wherein the at least one rule usable to predict exhaustion of the equipment includes a projected lifetime of the equipment.

3. The system of claim 2 wherein the at least one rule usable to predict exhaustion of the equipment includes a capacity of the equipment.

4. A method for monitoring equipment in a telecommunications system and predicting when the equipment will be exhausted, the method comprising:

selecting a configuration for the equipment;

defining a review for the selected configuration, the review identifying one or more rules usable to calculate exhaustion of the equipment;

obtaining equipment related data using a separate inventory system;

requesting retrieval of the obtained data for the defined review so that the data can be compared to the one or more rules; and

receiving a comparison of the data and the review.

5. The method of claim 4 wherein identifying the one or more rules usable to calculate exhaustion of the equipment includes identifying at least one of a lifetime of the equipment and a capacity of the equipment.

6. The method of claim 4 wherein the review further identifies a review interval and/or a notification preference and wherein the data can also be compared to the review interval and/or the notification preference.

7. The method of claim 4 wherein the configuration is selected from a list of predetermined possible configurations.

8. The method of claim 4 wherein identifying one or more rules comprises:

selecting a rule from a rule tree according to a rule set definition, the rule comprising an antecedent and a consequent; and

modifying either or both of the antecedent and the consequent of the selected rule.

9. The method of claim 4 further comprising receiving the comparison as an analyzed conclusion provided through an email operation.

10. A system for monitoring equipment in a telecommunications network, the system comprising:

a monitor set including at least one of either a subset of the equipment, a review period, or a configuration for the equipment;

a plurality of rules related to the monitor set, wherein at least one rule enables a prediction of equipment exhaustion;

means for obtaining data related to the monitor set; and

a program for creating one or more analytical reports about the monitor set based on the rules and the data, wherein at least one of the one or more analytical reports details a relationship between demand and capacity for at least a portion of the equipment.

11. The system of claim 10 further comprising a graphical user interface for receiving additional rules from a user and for providing the additional rules to the program.

12. The system of claim 10 wherein the program comprises an inference engine comprising instructions for retrieving the data from a data layer of an inventory retrieval system, determining if a match exists between the data and one or more of the rules and selectively firing the rule on the data to produce an analysis to create the one or more analytical reports, wherein the one or more analytical reports include a prediction of equipment exhaustion.

13. The system of claim 1 wherein the configuration for the equipment is selected from a list of predetermined possible configurations.

14. The system of claim 1 wherein the rules are organized in a tree structure.

15. The system of claim 1 wherein at least one of the rules includes an antecedent and a consequent.

16. The system of claim 10 wherein the configuration for the equipment is selected from a list of predetermined possible configurations.

17. The system of claim 10 wherein the at least one rule usable to predict exhaustion of the equipment includes a projected lifetime of the equipment.

18. The system of claim 10 wherein the at least one rule usable to predict exhaustion of the equipment includes a capacity of the equipment.

19. The system of claim 10 wherein the rules are organized in a tree structure.

20. The system of claim 10 wherein at least one of the rules includes an antecedent and a consequent.

EVIDENCE APPENDIX

Not applicable to current appeal

RELATED PROCEEDINGS APPENDIX

Not applicable to current appeal